



**MET PANEL (METP)
MET OPERATIONS GROUP (MOG)
VOLCANIC ASH (VA)**

SECOND MEETING

Buenos Aires, Argentina, 27 to 28 April 2016

Agenda Item 4 : Activity 3.2

Volcanic Ash Confidence Assessment

(Presented by Australia)

SUMMARY

This paper provides an update on Activity 3.2.

1. INTRODUCTION

1.1 At the 7th meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG/7), 18 to 22 March 2013, Bangkok, discussions were held around ways in which volcanic ash situational awareness products could be used to inform the risk assessment process of aviation decision makers.

1.2 In order to progress this work, Conclusion 7/13 was agreed by the group:

7/13 *That in support of operators safety management systems/safety risk assessments:*

- a) all VAAC Provider States be invited to consider the provision of situational awareness information on volcanic activity relative to their area of coverage and ways it can be proactively obtained and presented in a consistent manner; and*
- b) an ad-hoc group consisting of Australia (Rapporteur), France, the United Kingdom, the United States, IATA, IUGG and WMO further develop concepts*

1.3 Given the dissolution of the IAVWOPSG since that time, this topic is now pursued within the framework of the Meteorology Operations Group.

2. DISCUSSION

2.1 Pursuant to Conclusion 7/13 VAAC Darwin has developed a web interface to a database of volcanic activity information known as the Graphical Daily volcanic Activity Summary (GDAS). The database covers

volcanic activity within Darwin VAAC Area of Responsibility (AOR) and has been publically available since August 2015.

2.2 **Attachment 1** includes an overview of the GDAS issued by VAAC Darwin daily at approximately 06 UTC. The GDAS can be accessed online at <http://reg.bom.gov.au/fwo/reg/IDD41410/gdas.html> (username: bomw0511, pw: 59JncmjN).

2.3 **Attachment 2** includes an example entry from the GDAS for the volcano Sinabung.

2.4 The GDAS provides a graphical interface to access information on the previous eruptive behavior of volcanoes and is able to visualize a timeline of ash plumes observed by the VAAC. Since its inception in August 2015 the GDAS has gained a wide audience amongst aircraft operators and volcanologist in South East Asia.

2.4 A further upgrade of the GDAS is expected to be completed by August 2016 to extend the database beyond VAAC Darwin's area of responsibility and to improve the performance of the web interface.

3. CONCLUSION

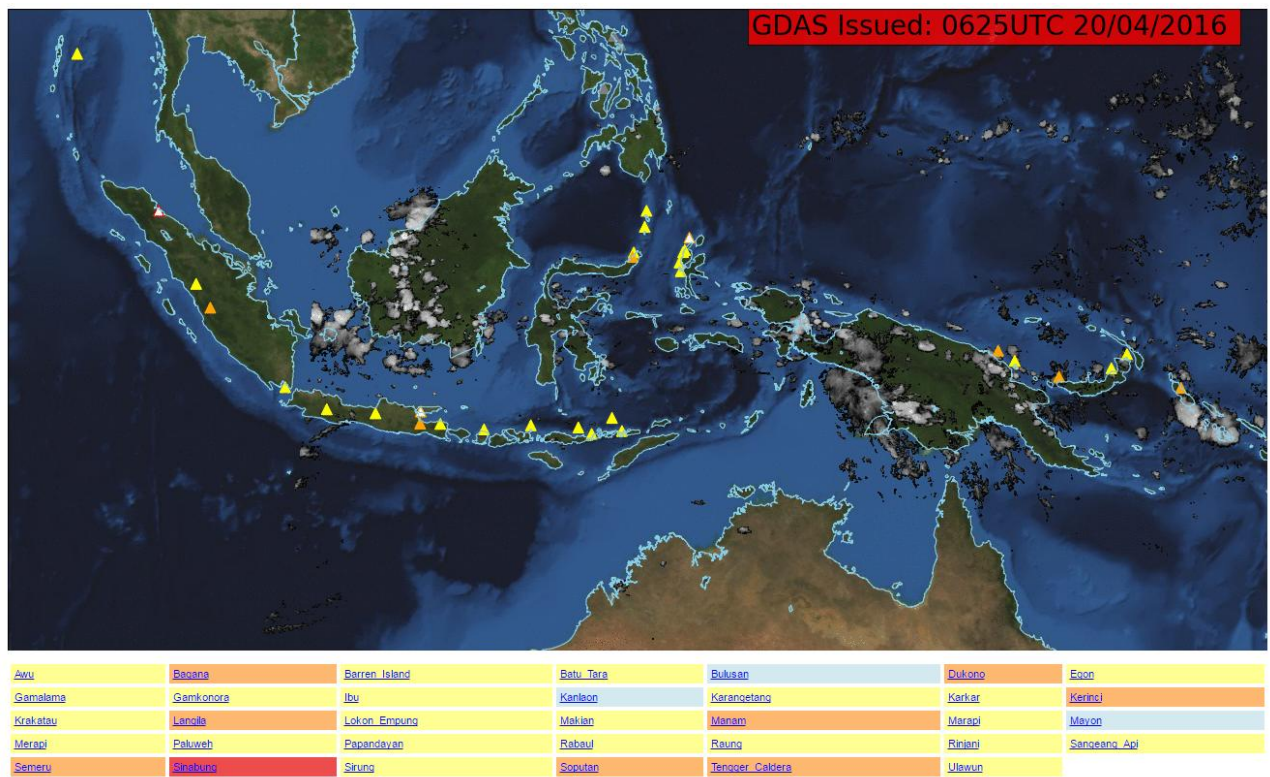
3.1 In view of the foregoing, the group is invited to discuss the provision of volcanic ash situational awareness products and decide whether or not work on conclusion 7/13 should still be pursued and reported back to the next meeting of the MOG.

4. ACTION BY THE MEETING

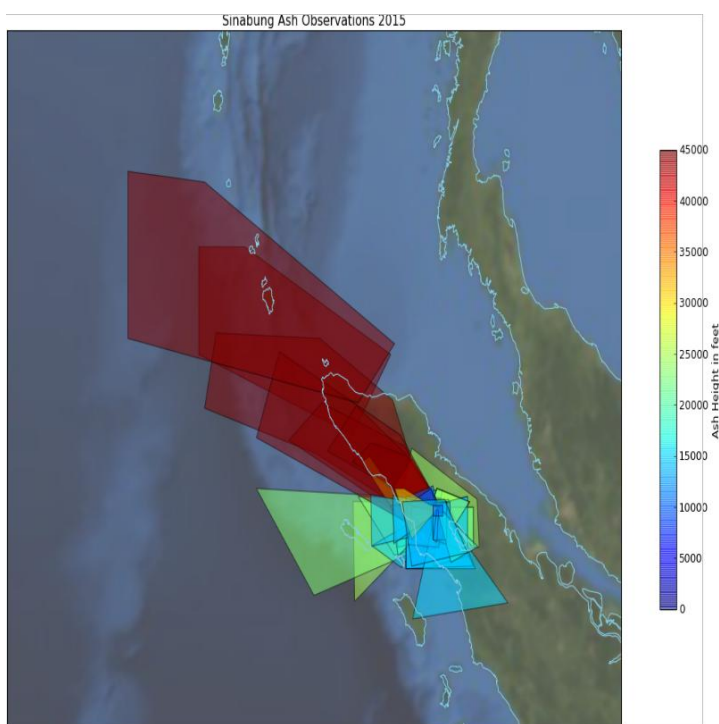
4.1 The meeting is invited to:

- a) note the information contained in this Study Note; and
- b) agree whether or not conclusion 7/13 remains valid.

ATTACHMENT 1: Graphical Daily volcanic Activity Summary



ATTACHMENT 2: Example Volcano Entry



VOLCANO:	Sinabung
NUMBER:	261080
LAT:	3.17
LON:	98.39
AREA:	Indonesia
SUMMIT ELEVATION:	2460
AVIATION COLOUR CODE:	Red
LAST REPORTED/OBSERVED PLUME:	20160420
CHARACTERISTIC ACTIVITY:	Semi continuous low level eruptions since October 2013. Intermittent high level eruptions.
RECENT ACTIVITY:	Regular emissions of thin to thick white smoke extending 50 - 450m above summit with intermittent pyroclastic flows, co-ignimbrite plumes and low-level eruptions of thick, grey ash ranging 500 to 4000m above summit.
PROBABILITY OF HIGH LEVEL ERUPTION:	Mod
PROBABILITY OF LOW LEVEL ERUPTION:	High
INFORMATION SOURCE:	CVGHM, Himawari-8, webcam,
REMARKS:	The typical eruptive activity over recent months includes pyroclastic flows and co-ignimbrite plumes to 25,000 ft. Colour code upgraded to aviation colour code Red from Orange on 20150908 based on CVGHM advice. Based on visual and instrumental observation data, CVGHM maintain activity level IV on 20160105.
LAST REVIEWED:	20160420